
Preface

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The U.S. Global Change Research Program (USGCRP) was created in 1989 and authorized by Congress in the Global Change Research Act of 1990. The goal of the USGCRP is to provide a comprehensive and integrated U.S. research program that helps the nation and the world understand, assess, predict, and respond to human-induced and natural processes of global change.

The 1990 Act also required that the USGCRP prepare periodic assessments of the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity. The assessments must analyze current trends in global change, both human-induced and natural, and project major trends for the subsequent 25–100 years.

During its first decade of existence, the USGCRP greatly improved our understanding of global-scale environmental process and helped identify and explain the causes and consequences of a series of global environmental changes. With this solid scientific foundation, the USGCRP completed its first National Assessment, *Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change*, in November 2000. This first Assessment began a national process of research, analysis, and dialogue about the coming changes in climate and their impacts, and what Americans can do to adapt to an uncertain and continuously changing climate. It identified key climatic vulnerabilities of particular regions and sectors in the context of other changes in the nation's environment, resources, and economy.

One of the sectors studied as part of the first National Assessment was the health sector. The Executive Summary of the Health Sector Assessment first appeared in the April 2000 issue of *Environmental Health Perspectives*. This special issue of *Environmental Health Perspectives* presents the detailed, peer-reviewed studies and results that formed the foundation for the Executive Summary.

The Health Sector Assessment was sponsored by the Global Change Research Program in the U.S. Environmental Protection Agency's (EPA) Office of Research and Development. The EPA has made a major commitment to the National Assessment process and to the ongoing assessment activities of the USGCRP. EPA's Global Change Research Program is an assessment-oriented program with

primary emphasis on understanding the potential consequences of climate variability and change on human health, ecosystems, and socioeconomic systems in the United States. EPA also studies potential opportunities to adapt to climate change—to reduce the risks or take advantage of the opportunities presented by climate variability and change. As part of the first National Assessment, EPA also sponsored the Mid-Atlantic Regional Assessment, the Great Lakes Regional Assessment, and the Gulf Coast Regional Assessment.

The Health Sector Assessment was conducted through a public–private partnership. Although EPA sponsored the assessment, the Johns Hopkins School of Hygiene and Public Health coordinated the assessment process, produced the assessment report, and implemented a rigorous peer-review process. Authors from both the private and public sectors were selected to ensure that a broad spectrum of views was represented in the assessment and that a balanced assessment report was produced. Jonathan Patz (Johns Hopkins School of Hygiene and Public Health) and Michael McGeehin (U.S. Centers for Disease Control and Prevention) co-chaired the Health Sector Assessment. Susan Bernard (Johns Hopkins School of Public Health) was the Project Director.

The scope of the Health Sector Assessment was defined by four questions similar to those posed to all investigators participating in the U.S. National Assessment process: *a*) What is the current status of the nation's health and what are current stresses on our health? *b*) How might climate variability and change exacerbate or ameliorate existing or predicted problems? *c*) What is the country's capacity to adapt to climate change? *d*) What essential knowledge gaps must be filled to understand fully the possible impacts on human health of climate variability and change?

The Health Sector Assessment has made great progress toward answering these questions. It has used the best available scientific information to assess the potential consequences of climate variability and change for human health in the United States and provided timely and useful information for public health officials and other decision makers. Also, it has identified key knowledge gaps that will help shape the future research agenda. We anticipate that the insights reported in this special issue will be of interest to public health officials worldwide as well as researchers contributing to the assessment

activities of the United Nations Intergovernmental Panel on Climate Change (IPCC).

Assessment is an ongoing activity. As key knowledge gaps are filled and our understanding of the possible impacts of climate variability and change on human health improves, ongoing assessments will give decision makers additional useful insights. The EPA will continue to support research and assessments focused on understanding the potential consequences of climate variability and change on human health. The EPA also will continue to conduct this work through public–private partnerships that actively engage researchers from the academic community, decision makers, resource managers, and other stakeholders in the assessment process.

Many people contributed to the success of the Health Sector Assessment. Kristie Ebi, Paul Epstein, Anne Grambsch, Duane Gubler, Paul Reiter, Isabelle Romieu, Joan Rose, Jonathan Samet, and Juli Trtanj all made valuable contributions as authors and members of the health sector team. Thomas Cecich (Glaxo Wellcome) acted as the liaison between the Health Sector Assessment authors and the National Assessment Synthesis Team that wrote the Synthesis Report for the entire U.S. National Assessment. Jolie Susan and Heidi

Curriero (both at Johns Hopkins School of Hygiene and Public Health) provided valuable administrative support to the entire team, and Amy Redmon-Norwood provided editing assistance. David Engelberg, Gregg Greenough, Erin Lipp, Maria Mirabelli, Roger Nasci, Jasmin Riad, Benjamin Sherman, and Wendy Yap served as additional authors. Finally, the quality of the papers comprising the health assessment document is in large part enhanced by the outstanding input from many peer reviewers. The manuscripts were subjected to numerous layers of peer review separate from and prior to the final anonymous peer review by the journal. Expert reviewers included Brenda Boutin, Rebecca Calderon, W. Randolph Daley, Douglas Dockery, Dennis Driscoll, Howard Frumkin, Walter Jakubowski, Laurence Kalkstein, Michael Lipsett, Eric Noji, Dalton Paxman, John Reiff, William Reisen, Joel Schwartz, Joel Selaniko, Robert Shope, Andrew Spielman, and Mary Wilson. There also were several other experts involved in the overall U.S. National Assessment process who reviewed or assisted with aspects of the Health Sector Assessment. We hope the contributions made by this entire team of researchers will spur further investigations into the potential consequences of climate variability and change for human health.